What is claimed:

1.   An operating method for operating an engine controller for an internal combustion engine, comprising the steps:

-       operating in a first operating mode,

-       acquiring   of   at   least   one   state   variable (CL, Adap_Fenst_fac, Adap_Fenst_Add) of the internal combustion engine,

-       changing over from the first operating mode into a second operating mode, wherein the changing over from the first operating mode into the second operating mode takes place as a function of said at least one determined state variable (CL, Adap_Fenst_fac, Adap_Fenst_Add) of the internal combustion engine.

2.   The operating method according to claim 1, wherein the internal combustion engine operates in lean mode in the first operating mode.

3.   The operating method according to claim 1, further including a changeover from the first operating mode into one of the second operating mode and a third operating mode which takes place as a function   of   the   determined   state   variable   (CL, Adap_Fenst_fac, Adap_Fenst_Add) of the internal combustion engine.

4.   The operating method according to claim 3, wherein a fuel/air ratio of the internal combustion engine is adapted in the second operating mode or in the third operating mode.

5.   The operating method according to claim 4, wherein the fuel/air ratio is adapted additively or multiplicatively.

6.   The operating method according to claim 5, wherein rotational speed and torque of the internal combustion engine are determined, and an additive or a multiplicative adaptation of the fuel/air ratio takes place as a function of the rotational speed and torque.

7.   The operating method according to claim 6, wherein the multiplicative adaptation of the fuel/air ratio takes place if the torque exceeds a limiting value and the rotational speed exceeds a limiting value.

8.   The operating method according to claim 6, wherein the additive adaptation of the fuel/air ratio takes place if the torque drops below a limiting value and the rotational speed drops below a limiting value.

9.   The operating method according to claim 3, wherein fuel tank venting takes place in the second operating mode or in the third operating mode.

10.   The operating method according to claim 9, wherein a degree of loading (CL) of a fuel tank filter is determined and compared with a predefined limiting value (CL_{MAX}), and wherein the changeover of the operating mode takes place if the determined degree of loading (CL) of the fuel tank filter exceeds the limiting value (CL_{MAX}) of the degree of loading.

11.   The operating method according to claim 9, wherein a time period (T_CL) since a last fuel tank venting operation is determined, and wherein the changeover of the operating mode takes place if the time period ((T_CL) since the last fuel tank venting operation exceeds a predefined limiting value (T_CL_{MAX}).

12.   The operating method according to claim 11, wherein during the fuel tank venting operation, the degree of loading (CL) of the fuel tank filter is determined and the limiting value (T_CL_{MAX}) for the time period (T_CL) since the last fuel tank venting operation is defined as a function of the determined degree of loading (CL).

13.   An engine controller for an internal combustion engine, having at least a first signal input for acquiring at least one first state variable (CL, Adap_Fenst_fac, Adap_Fenst_Add) of the internal combustion engine, and a signal output for outputting a control signal (OUT) for changing over the operating mode of the internal combustion engine, said controller comprising at least one evaluation unit for generating the control signal (OUT) as a function of the at least one acquired state variable   (CL, Adap_Fenst_fac, Adap_Fenst_Add)   of   the   internal combustion engine.

14.   The engine controller according to claim 13, wherein said at least one first state variable (Adap_Fenst_fac, Adap_Fenst_Add) represents at least one of a rotational speed and torque of the internal combustion engine.

15.   The engine controller according to claim 13, wherein one of said at least one of first state variable represents the time period (T_CL) since the last tank venting operation.

16.   The engine controller according to claim 13, wherein one of said at least one of first state variable represents the degree of loading (CL) of a fuel tank filter, and wherein the evaluation unit includes a comparator unit in order to compare the degree of loading (CL) with a

predefined limiting value (CL_{MAX}) and to generate the control signal (OUT) as a function of the comparison.

17. The engine controller according to claim 13, wherein the evaluation unit includes a comparator unit in order to compare the time period (T_CL) since the last tank venting operation with a predefined limiting value (T_CL_{MAX}) and to generate the control signal (OUT) as a function of the comparison.

18. The engine controller according to claim 17, wherein the evaluation unit includes a characteristic curve element in order to define the limiting value (T_CL_{MAX}) for the time period (T_CL) since the last tank venting operation as a function of the degree of loading (CL) of the fuel tank filter.

19. The engine controller according to claim 15, wherein the evaluation unit is connected at the output end to a logic circuit.

20. An engine controller for an internal combustion engine, said controller comprising:

at least one evaluation unit having at least one signal input for receiving a corresponding at least one first state variable of the internal combustion engine and each of said at least one evaluation units

providing a corresponding first output signal as a function of said at least one first state variable; and

logic means responsive to said at least one first output signal of said evaluation unit in order to provide a first output control signal for changing an operating mode of the internal combustion engine.

21.   The engine controller according to claim 20, wherein one of said at least one evaluation units includes a first comparison for comparing a state variable representing the degree of loading with a pre-determined limiting value to generate a first preliminary control signal as a function of the comparison, said one evaluation unit further including a second comparison unit for comparing a timed period since a previous tank venting operation with a predefined limiting value to generate a second preliminary control signal as a function of the comparison.

22.   The engine controller according to claim 21, wherein said first and second comparison units are connected to said logic means.